DOCUMENT RESUME

ED 401 634 EA 028 083

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TITLE Evaluating the Design, Implementation, and Impact of a Non-Traditional Cohort Ed.D. Program in Educational Leadership and Policy Analysis.
PUB DATE Oct 96
NOTE 29p.; Paper presented at the Annual Meeting of the University Council for Educational Administration (10th, Louisville, KY, October 25-27, 1996).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Administrator Education; *Doctoral Programs; *Educational Administration; Educational Innovation; Graduate Study; Higher Education; Problem Solving; Program Effectiveness; Program Evaluation; Theory Practice Relationship

ABSTRACT

Leaders within the professional practices of law, medicine, business administration, and school leadership share the common challenge of designing, implementing, and evaluating programs of study that integrate sophisticated levels of knowledge of content and deep understanding of the strategies and skills required for practice problem solving. This paper presents findings of an evaluation of an innovative Ed.D. program within the Department of Educational Leadership and Policy Analysis at the University of Missouri-Columbia. The program is structured around four thematic focus blocks rather than the traditional course design. The evaluation, the first two phases of a 3-year action-research project, focused on students' perceptions of the effects of instructional Themes 1 (fall semester 1995) and 2 (winter semester 1996). Data were collected from three sources: (1) a survey of cohort program students; (2) interviews with cohort faculty; and (3) interviews with faculty and administrators from the regular on-campus educational leadership program. Findings indicate that the program has had a positive impact on students' cognitive growth and professional development. Content, instructional strategies, and experiential learning activities for both Theme 1 and Theme 2 were well received by students. Faculty members' and administrators' perceptions of the program's impact on their own practice and on the department's on-campus instructional programs varied with their own level of involvement with the cohort program. Two tables are included. (Contains 16 references.) (LMI)

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ED 401 634

EVALUATING THE DESIGN, IMPLEMENTATION, AND IMPACT OF A NON-TRADITIONAL COHORT ED.D. PROGRAM IN EDUCATIONAL LEADERSHIP AND POLICY ANALYSIS

by

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Paper presented at the

University Council for Educational Administration
Tenth Annual Convention

Louisville, Kentucky

October 25, 1996

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EA 028 083

Evaluating the Design, Implementation, and Impact of a Non-Traditional Cohort Ed.D. Program in Educational Leadership and Policy Analysis

R.V. Hatley, D.E. Arredondo, J.F. Donaldson, P.M. Short & L.W. Updike

In recent years university programs that prepare individuals for professional practice in law, medicine, business administration, and school leadership have been heavily criticized. Questions have been raised about whether universities can continue as the most appropriate environment for professional preparation (Forsyth, 1993). Leaders within these fields of study share a common commitment to developing practitioners who demonstrate thoughtful performances in complex situations of practice. They also share the common challenge of *designing, implementing, and evaluating programs of study that integrate sophisticated levels of knowledge of content and deep understanding of the strategies and skills required for solving intricate problems in practice.*

The practice-content balance debate continues among and between professors and practitioners in these fields. For example, Pitner (1988) noted that like education, medical, business, and legal training have all been criticized for their lack of relevance and usefulness. Schon (1987) characterized training programs of most professions as suffering from problems of abstract and irrelevant training, problems compounded by a failure to test theories from the field to guide practice.

In response to the plethora of criticism, professional practice preparation programs *are* being changed. Program reform has been limited, however, by employing competence models within settings poorly suited to fundamental change. The central flaw of competence models is their underlying assumption that professional performance is an individual affair (Nowlen, 1988). Professionals do not work alone, but rather in rich social contexts that involve relationships with, for example, peers, the organization, members of other professions, and professional associations. As a consequence, despite a decade of national debate challenging the professions to restructure their preparatory programs, much change has been gradual, incremental, and minimal. The same is true for education. In fact, Forsyth (1993, p. 329) writes, "Although there is some frantic program revision going on in

educational administration preparation, much of it is not genuine experimentation. . . Much of it is very bad stuff, ill conceived adaptations of reform ideas turned perverse." Bjork and Ginsberg (1995) also argue that fundamental structural change in leadership preparation programs within the traditional university setting is unlikely to occur, that only "in developing settings" will the true restructuring called for in the reform debate be nurtured.

In September 1995, the Department of Educational Leadership and Policy Analysis, University of Missouri-Columbia, began an innovative executive Ed.D. program, collaboratively designed around a performance model and delivered in a "developing setting." The program is (1) grounded on the notion that professional practice can be improved through a continuous reflective learning cycle, linking practice with the program theory and connecting new knowledge with reflection in and on practice; (2) designed to exhibit principles of cognitive learning theory applied within the contexts of social and cultural experiences of adult learners; (3) structured within a student cohort framework to promote the development of supportive, collegial learning communities; and (4) designed to take full advantage of the students' work sites as rich laboratories for the study of professional practice. The curriculum is structured within four thematic focus blocks, organized as seamless sets of inquiry rather than traditional courses. Instructional strategies include collaborative engagement, problem-based learning, and interdisciplinary approaches to problem solving, all with authentic assessments. Integrated into each thematic unit are activities that develop students' knowledge and skills in research design, data acquisition and analysis, and program evaluation (Hatley, Arredondo, Donaldson & Phillips, 1996). Unlike most educational administrator preparation programs, this program includes individuals from K-12 public schools, postsecondary education institutions, governmental agencies, and corporations with education-related missions. This multiple-level focus enriches the experiences of a diverse student population, draws upon faculty expertise across disciplines, and reflects the interconnectedness among educational sectors (Arredondo, Donaldson, Hatley & Updike, 1996).

Project Purposes and Methods

Although many professional preparation programs have been reformed and numerous studies of those reforms conducted, few have included comprehensive on-going evaluations of the curricular components. Fewer still have focused on the broad impact of those components, including effects on practice. This project begins such an examination of the program at the University of Missouri by focusing on selected perceptions of the effects of instructional Themes 1 and 2 (Fall Semester 1995 and Winter Semester 1996). In this phase of the program evaluation, we will examine cohort member and educational leadership faculty and administrator perceptions about: (1) how the development of new knowledge structures and skills begin to influence the learner's practices within the work setting; (2) how a learner's ability to cognitively process knowledge in reflective, self-regulated ways, changes over the course of her or his participation in a three-year doctoral program; (3) how educational leaders acquire the essential knowledge and skills if they are to effectively coach and mentor collaborative work teams, analyze and solve vexing problems in complex organizations, and develop, implement, and evaluate educational programs and change processes; (4) how practitioner scholarship is affected through an integrated approach to learning about and practicing educational research, and (5) if and how a university's "traditional on-campus" doctoral program is affected by faculty involvement with a very different and innovative off-campus program.

Data Collection and Analysis. Described below are the data collection and analysis procedures used in this preliminary examination of selected perceptions of Theme 1 and Theme 2 effects. As previously noted, this represents only the first two phases of a multi-year action research project that will, over the course of three years, assess the procedural components, outcomes, and impact of the program across four content themes, two research skill development components, two applied research practicums, and the students' one-year dissertation projects. Multiple data collection methods will be used in each phase to provide sequential, discrete, and aggregate assessments and to allow for eventual triangulation of data for the purposes of summative evaluation of the doctoral program outcomes.

Data reported here were collected from three sources: (1) cohort program students, (2) cohort faculty, and (3) other faculty and administrators from the regular on-campus program in educational leadership. Each data source is described separately. Cohort students were asked to complete the Cohort Survey Instrument, calling for 10-point scaled rating responses across four assessment dimensions in each of eight knowledge and skill content areas covered in Theme 1, Creating Personal Mastery and Effective Learning Teams, and ten knowledge and skill content areas covered in Theme 2, Creating Effective Learning Organizations. One dimension measured the level of knowledge and skill of the cohort participant prior to Theme 1 and Theme 2 instruction; another, the level of knowledge and skills after completion of the semester-long instruction, collaborative problem solving, and independent reflection activities. From these two sets of data, "growth" measures were calculated by comparing pre-participation levels of knowledge and skills to post-participation levels. To obtain data necessary to examine the impact of cohort participation on students' acquisition of knowledge and leadership skills, the students responded to survey items which measured the extent to which they believe their participation in instructional theme activities and events contributed to their growth and development. Finally, students were asked to indicate the level to which they have applied Theme 1 and Theme 2 knowledge and skills in their educational practices within their unique work settings.

Data were analyzed using descriptive statistics, such as scale score ranges, mathematical averages, and standard deviations for the cohort's responses. Explanatory details about the wording of the survey instrument items, response scaling, and analysis of the data are provided as footnotes to Table 1 (for Theme 1) and to Table 2 (for Theme 2). Cohort students were also given the opportunity to provide candid, expansive responses to open-ended items which were included as a part of the Cohort Survey Instrument. Examples of stimulus items are as follow: "I would describe being a member of the cohort doctoral program as _____. The best part of being in the cohort has been _____. If I could have changed one thing about the cohort in Theme 1 [Theme 2] 2, it would have been _____. The most beneficial thing I learned during Theme 1 [Theme 2] was _____. The most irrelevant thing I learned

was _____. What I liked best about the instruction in Theme 1 [Theme 2] was _____. What I liked least about the instruction was _____. " Students' responses were subjected to content analysis to determine central themes and intensity of expressed views and are discussed later from naturalistic inquiry and program evaluation perspectives. Data analyses, results, and interpretative discussions are provided separately for the two 1995-96 academic year cohort program instructional themes.

An interview guide was developed to collect data from the University of Missouri-Columbia Educational Leadership and Policy Analysis faculty and campus administrators in regard to how much they know about the off-campus cohort doctoral program, their perceptions of the relative successes of the program to date, the perceived impact of the program on campus program changes, and on their own instructional strategies. Fourteen faculty members and administrators were interviewed and their scripted responses were subjected to content analysis to determine central themes and intensity of expressed views. In the discussion section of this report the data are described both as aggregated data and as categorical data based on the extent to which individual faculty members have been "actively engaged" in the cohort program, ranging from extensive engagement to little or no engagement. Faculty engagement possibilities included participation on the program design team, participation in the cohort screening and selection processes, contributing member of the instructional delivery team, contact and discussions with members of the cohort students, and/or, at the lowest engagement level, "what I know I have heard about at department faculty meetings and some informal discussions with key players."

Results: Theme 1, Creating Personal Mastery and Effective Learning Teams

Student Data: Theme 1 Survey Instrument, Scaled-Response Items

Growth for the cohort during Theme 1, semester one, is evident in all eight knowledge and skill concept areas, as measured by the Cohort Survey Instrument. (See Table 1.) The lowest pre-theme levels of knowledge and skill were in the areas of reflective practice and cognitive learning and adult learning theory, the highest, team building and verbal and nonverbal communication. Interestingly,

the two lowest pre-theme areas of knowledge and skill were rated as the highest areas of growth by the cohort students after Theme 1 instruction, collaborative engagement events, and reflective practice activities were completed. The two highest pre-theme areas of knowledge and skill were rated as the lowest growth areas by the students at the end of the theme.

Increments of aggregate cohort group growth in the concept areas, attributed by the students to their participation in the first semester of the cohort doctoral program ranged from lows of 70.50% for team building and 70.90% for research understanding and use to highs of 85.26% for cognitive learning and adult learning theory and 89.51% for reflective practice. The data, presented in Table 1, also indicate clearly that the cohort students found ways to apply the knowledge obtained and the skills developed during Theme 1 in their professional work settings. Means for application of knowledge and skills ranged from a low of 6.27 for research understanding and use (indicating a moderate level of application) to a high of 8.65 for verbal and nonverbal communication (indicating a high level of application). Therefore, it appears that the students are finding opportunities to address their own and their unique educational organizations' needs for developing personal mastery and creating effective learning teams.

Student Data: Theme 1 Survey Instrument, Open-Ended Response Items

Student responses to the open-ended survey items were first compiled by item and then grouped around the emergent themes. The data groups were then collapsed to eliminate redundancies. This resulted in four major categories of responses: (1) student feelings about the cohort itself and about being a member of the cohort, (2) student perceptions of their own and others' responses to the content knowledge presented in Theme 1: Creating Personal Mastery and Effective Team Learning, (3) student responses to the instructional methods used in Theme 1, and (4) over-all reflections about the cohort program as experienced in Theme 1. Each category is discussed separately following Table 1.

Table 1

Knowledge Base and Leadership Skills, Cohort Growth and Application: Theme 1 - Creating Personal Mastery and Effective Learning Teams*

A. Knowledge & Skill Concept Areas Covered in Cohort Theme 1 (1995 Fall Semester)	B. Pre-Theme Knowledge and Skills, by Concept (1-10 Scale)	C. Post-Theme Knowledge and Skills, by Concept (1-10 Scale)	D. Growth in Knowledge and Skills, by Concept (B - C = D)	E. % Growth Attributed to Program, if + Growth (1-10 Scale)	F. Application by Student in the Work Setting (1-10 Scale)
1. Cognitive Structuring and Development					
Low Rating	2.00	5.00	-1.00	60.00	3.00
High Rating	8.00	9.00	5.00	100.00	10.00
Cohort Average	4.83	7.39	2.57	81.78	7.70
Standard Deviation	1.70	1.16	1.47	10.30	1.49
2. Cognitive Learning and Adult Learning Theory					
Low Rating	2.00	6.00	0.00	70.00	5.00
High Rating	8.00	9.00	5.00	100.00	10.00
Cohort Average	4.65	7.65	3.00	85.26	7.61
Standard Deviation	1.56	0.93	1.28	0.79	1.37
3. Verbal and Nonverbal Communications					
Low Rating	2.00	7.00	0.00	10.00	7.00
High Rating	10.00	10.00	6.00	100.00	10.00
Cohort Average	7.09	8.70	1.61	76.14	8.65
Standard Deviation	1.83	0.82	1.59	24.10	1.03
4. Interpersonal and Intra-organizational Conflict					
Low Rating	2.00	7.00	0.00	10.00	5.00
High Rating	10.00	10.00	6.00	100.00	10.00
Cohort Average	5.96	8.04	2.09	78.30	7.91
Standard Deviation	1.87	1.02	1.70	19.20	1.20
5. Coaching and Mentoring in Learning Organizations					
Low Rating	3.00	7.00	0.00	40.00	6.00
High Rating	10.00	10.00	5.00	100.00	10.00
Cohort Average	6.64	8.55	1.91	80.52	8.32
Standard Deviation	1.76	0.91	1.23	16.20	1.21

Continued

Table 1 (continued)

A. Knowledge & Skill Concept Areas Covered in Cohort Theme 1 (1995 Fall Semester)	B. Pre-Theme Knowledge and Skills, by Concept (1-10 Scale)	C. Post-Theme Knowledge and Skills, by Concept (1-10 Scale)	D. Growth in Knowledge and Skills, by Concept (B - C = D)	E. % Growth Attributed to Program, if + Growth (1-10 Scale)	F. Application by Student in the Work Setting (1-10 Scale)
6. Team Building in Learning Organizations					
Low Rating	4.00	7.00	0.00	30.00	3.00
High Rating	10.00	10.00	3.00	100.00	10.00
Cohort Average	7.23	8.64	1.41	70.50	8.55
Standard Deviation	1.45	0.90	1.05	20.60	1.50
7. Reflective Practice					
Low Rating	1.00	5.00	0.00	60.00	4.00
High Rating	10.00	10.00	9.00	100.00	10.00
Cohort Average	4.09	7.91	3.82	89.51	8.00
Standard Deviation	2,37	1.41	2.15	10.90	1.35
8. Research Understanding and Use					
Low Rating	1.00	5.00	0.00	10.00	1.00
High Rating	8.00	9.00	6.00	100.00	10.00
Cohort Average	5.09	7.14	2.05	70.90	6.27
Standard Deviation	2.02	1.08	1.50	26.50	2.27

Reliability analysis for the instrument (40 scaled items): Alpha coefficient = .7901

***Notes: Information about collecting and analyzing the data in Table 1.**

Column A: Knowledge and Skills Concept Areas
Eight areas of declarative knowledge, procedural knowledge, and skills included in Theme 1

Column B: Pre-Theme Knowledge and Skills, instrument item
Item - *My level of knowledge and related skills as of July 1, 1995:*
Data - Ten-point scaled responses, 1 = None . . . . . 10 = Extensive

Column C: Post-Theme Knowledge and Skills, instrument item
Item - *My level of knowledge and related skills as of January 24, 1996:*
Data - Ten-point scaled responses, 1 = None . . . . . 10 = Extensive

Notes to Table 1 (continued)

Column D: Growth in Knowledge and Skill during Theme 1
Data - Computed by subtracting respondents' Post-Theme scores from Pre-Theme scores
Formula - (Column B - Column C = Growth) - computed for each individual respondent

Column E: Percent of Growth Attributable to Cohort Program Participation
Item - *The degree to which I believe Theme 1 is responsible for my level of knowledge and related skills as of January 24, 1996:*
Data - Ten-point scaled responses, 1 = 0-10% . . . . . 10 = 100%

Column F: Applying Theme 1 Knowledge and Skills in the Work Place
Item - *My current level of application of knowledge and related skills in my work setting:*
Data - Ten-point scaled responses, 1 = None . . . . . 10 = Extensive

Student feelings about the cohort and about membership in the cohort. Students described their feelings about being a member of the cohort in overwhelmingly positive terms. They saw the experience as both "challenging and exhilarating" and as "an excellent learning experience." One said that the cohort provided "an unusual opportunity to break with tradition and to approach learning with real world application in mind" while another wrote that s/he found the cohort "extremely important to my professional growth". One cohort member described him/herself as "one of many seeking a common goal; [the program is] an experiment that is stressful, exciting, hard work, a struggle at times, not so bad at other times, and [overall] a privilege."

Students saw collaboration as the best part of the cohort experience. They wrote about the opportunity to learn from peers, sharing experiences and ideas, building relationships, networking, the synergy of the group experience, and the support provided from others. One described Theme 1 as providing a "truly collaborative setting. Instructors are part of the 'community of learners' and the cohort members bring varied and rich professional experience. The result is that we all benefit far more than any of us would in a traditional instructional approach."

Everything about membership in the cohort was not viewed as positive, however. Student' responses about what they would have changed about the cohort produced comments about a need to establish group norms early on, to work on building trust, to provide structures that allow for more one-on-one time with professors, to "muzzle" the constant complainers, to be allowed to work with only one group, and to have the primary work group be composed of voluntary members rather than assigned. One student expressed these ideas as, "We needed to do more to develop cohort norms and a high level of trust early in the semester. Because many of the cohort members were confident, comfortable, and able to trust almost immediately, we allowed the group to overlook the significant needs of a handful of members who seemed unable to get over this very significant hurdle. Their limitations became limitations for the entire group." Another, arguing for a different structure for small groups, wrote, "allow groups to form (naturally) and remain intact. In doing whole group discussion, we could all learn from the large group, but for building relationships (of support and need) it would be best if we could be in the same group continuously. In any organization you work with the large organizational group but you depend on the same small group within a department for work on a daily basis."

Student reactions to the content of Theme 1. The content knowledge selected for major emphasis during Theme 1 was that required for creating personal mastery and effective team learning. This language was borrowed from Peter Senge (1990). By it is meant the understandings and skills required for educational leaders to become self-regulated continuous learners and reflective practitioners, and the knowledge and skills needed to facilitate the continuous growth and development of the adults (both as individuals and teams) with whom they work so that those adults continuously function as self-regulated learners and reflective practitioners. Student responses indicated that their knowledge about reflective practice as well as their abilities to function as reflective practitioners has grown considerably during the Theme 1 learning experiences. Students described these understandings and skills as the most beneficial ideas learned during Theme 1. Sample comments illustrating this point

included a note about the importance of reflective practice and collaboration skills, "I now regularly apply both concepts, the first for myself and the second for my organization." A second cohort member stated that, "Before I start questioning others about their actions, I'm learning to look at myself." Still another said the most beneficial idea was "team building -- (especially)how to work effectively with people whom I do not necessarily see eye to eye with."

As could be predicted from their ratings of knowledge gained, students described considerable growth in their own knowledge in several sub-units within this theme, particularly those related to reflective practice. For example, one student said that his/her current capacity for personal mastery was "greatly improved -- the greatest growth in my professional development has come in the area of personal mastery. I'm better equipped at looking at myself objectively and [at asking] how my actions are affecting the organization." Another said these skills were "evolving -- I learned much about myself, particularly in the reflective journal, but still have much to learn." Others described their growth with such terms as "developing", "greatly improved", "significantly increased", "stretched", "quality improved, quantity increased" and "forever setting new boundaries".

Students were somewhat less sure about growth in their capacity to create effective learning teams. They said, "improved, but still needing work" and "somewhat increased; my confidence in this area has grown through my interaction with my team members. I will be more assertive as future teams develop." Others expressed caution about their own growth in this capacity. For example, one cohort member wrote that s/he felt, "More capable, but [I] still have reservations about skills required to be truly effective."

Students were also asked to identify the most irrelevant ideas learned during Theme 1. Most had difficulty with this item and responded that "nothing was irrelevant", that "everything was applicable" and one said, somewhat humorously, that the procedure for managing dinner fit into this category. Two identified the group project as less relevant, however; and one described the collaborative action research project as irrelevant.

Student reactions to the instructional methods used in Theme 1. Cohort members reported that they liked the instructional methods used by the professors, particularly the workshop approach (Arredondo and Rucinski, 1994). The workshop approach, as used in Theme 1, involved both structured and unstructured reflective journaling, patterned responses to journal entries, individual and group conferences with the professors, structured small group discussions of specific tasks, projects structured by individual work groups with periodic progress reports to peers, and production of a final product that demonstrated each task group's understanding of a significant portion of the theme content knowledge. Specific aspects of the workshop approach were also described as praiseworthy because they led to meaningful learning. For example, collaborative and interactive learning activities, group work, and reflective journaling were mentioned by several students as leading to "real learning". One student wrote that, the "professors eventually led us to a very meaningful group experience and project." Another cohort member identified "the opportunity to interact within a diverse group" as what s/he like best about the instruction in Theme 1. This student added, "I learned quickly that some of my preconceived notions were totally in error. My group was diverse and my experience in that group was enriching. I think I'm a better educator for it."

While most cohort member comments about instructional methods were extremely positive, some students reported that they liked least "the lectures that we did have," "the older and [sometimes] outdated journal articles," and "the lack of structure with the group project." One student wrote that the "lack of written material to provide an overall framework" caused confusion at times, another said that "instructors dispensed information as if we didn't have any prior knowledge" and still another would have preferred more student input into the instructional design.

Students' overall reflections about the cohort program as experienced in Theme 1. Most of the reflections offered by the cohort members were extremely positive. Three typical comments serve to illustrate this interpretation.

Theme 1 was an exceptional experience. I am excited to be in a program that brings immediate relevance to learning. I am convinced that the cohort delivery model is a vast improvement over traditional graduate delivery systems. It is wonderful to see graduate professors with the courage to step out from under the shadows of their ivory towers and really be about the business of developing real world educational leaders. It is also important to recognize that high academic expectations and a customer friendly graduate school delivery model are not mutually exclusive concepts. I would not be in graduate school if my only option was a traditional on-campus program. My obligations to my organization take precedence over my obligation to the university. The cohort program is the first graduate program that I have experienced that recognizes this reality and I appreciate it. The result is that both I and my organization benefit.

My participation in the structured learning from Theme 1 reinforced my intuitive beliefs about how people learn -- but more than that, the theme gave me the language to discuss collaborative, structured, and participative learning and why it works. My learning has given me the background to be a meaningful participant in the discussions we are having at the post secondary level regarding how we teach. I also have used my learning in structuring group activities that I have facilitated -- I believe the power of the group to come with its own answers.

I enjoyed Theme 1 because of the workshop approach. I felt as though my thoughts and feelings had some validity and were heard. I seem to learn better when given time to reflect through my feelings and understandings rather than through a more structured journal approach. I feel I have been able to work well with the team members of my project group because it fit better with my style of learning. For once the curriculum and assignments were adjusted to my needs rather than me having to adjust my learning style to the needs of the curriculum and the professor.

Negative student reflections about the overall cohort as experienced in Theme 1 were rare, and when offered, were mild by comparison. For example, one student wrote, "With all the concerns mentioned above, please keep in mind that this is better than it might have been. However, with all the build-up prior to the class beginning, it is less than my expectations." Another said, "Overall, the experience in Theme 1 was positive. I learned a lot and grew in knowledge greatly -- especially in the area of interpersonal skills. As I reflect on Theme 1, I am left with the perception that some cohort members acted very selfishly, never truly bonded with anyone, and did not respect the facilitators."

Results: Theme 2, Creating Effective Learning Organizations

Student Data: Theme 2 Survey Instrument, Scaled-Response Items

Growth for the cohort during Theme 2, semester two, is evident in all ten knowledge and skill concept areas, as measured by the Cohort Survey Instrument. (See Table 2 and discussion following.)

Table 2

Knowledge Base and Leadership Skills, Cohort Growth and Application: Theme 2 - Creating Effective Learning Organizations*

A. Knowledge & Skill Concept Areas Covered in Cohort Theme 2 (1996 Winter Semester)	B. Pre-Theme Knowledge and Skills, by Concept (1-10 Scale)	C. Post-Theme Knowledge and Skills, by Concept (1-10 Scale)	D. Growth in Knowledge and Skills, by Concept (B - C = D)	E. % Growth Attributed to Program, if + Growth (1-10 Scale)	F. Application by Student in the Work Setting (1-10 Scale)
1. Analysis of Organizational Situations					
Low Rating	2.00	7.00	1.00	70.00	7.00
High Rating	8.00	9.00	7.00	100.00	10.00
Cohort Average	4.83	8.39	3.57	87.80	8.30
Standard Deviation	1.85	0.72	1.78	9.50	0.93
2. Structural Nature of Organizations					
Low Rating	1.00	7.00	0.00	50.00	6.00
High Rating	9.00	10.00	7.00	100.00	10.00
Cohort Average	5.26	8.57	3.30	85.70	8.36
Standard Deviation	2.12	0.84	2.08	13.40	1.14
3. Human Resources and Group Empowerment					
Low Rating	3.00	7.00	0.00	30.00	7.00
High Rating	10.00	10.00	6.00	100.00	10.00
Cohort Average	6.26	8.91	2.65	79.10	8.91
Standard Deviation	1.96	0.79	1.72	20.90	0.85
4. Open Systems Nature of Organizations					
Low Rating	2.00	6.00	0.00	10.00	3.00
High Rating	8.00	10.00	7.00	100.00	10.00
Cohort Average	4.30	7.91	3.61	80.90	7.78
Standard Deviation	2.08	1.04	2.06	22.30	1.51
5. Political Nature of Organizations					
Low Rating	2.00	7.00	0.00	50.00	4.00
High Rating	8.00	10.00	6.00	100.00	10.00
Cohort Average	5.35	8.52	3.17	83.50	8.35
Standard Deviation	2.08	1.04	1.85	15.00	1.40

Continued

Table 2 (continued)

A. Knowledge & Skill Concept Areas Covered in Cohort Theme 1 (1995 Fall Semester)	B. Pre-Theme Knowledge and Skills, by Concept (1-10 Scale)	C. Post-Theme Knowledge and Skills, by Concept (1-10 Scale)	D. Growth in Knowledge and Skills, by Concept (B - C = D)	E. % Growth Attributed to Program, if + Growth (1-10 Scale)	F. Application by Student in the Work Setting (1-10 Scale)
6. Symbolic Nature of Organizations					
Low Rating	2.00	7.00	1.00	40.00	6.00
High Rating	8.00	10.00	7.00	100.00	10.00
Cohort Average	4.55	8.36	3.82	86.40	8.23
Standard Deviation	1.90	0.90	1.71	13.30	1.23
7. Unique Characteristics of Learning Organizations					
Low Rating	2.00	7.00	0.00	10.00	6.00
High Rating	9.00	10.00	7.00	100.00	10.00
Cohort Average	5.00	8.50	3.59	81.80	8.32
Standard Deviation	1.98	0.96	2.09	20.40	1.09
8. Team Building and Collaborative Problem Solving					
Low Rating	3.00	7.00	0.00	10.00	7.00
High Rating	10.00	10.00	6.00	100.00	10.00
Cohort Average	7.09	8.86	1.77	69.00	8.86
Standard Deviation	1.90	0.83	1.51	26.20	0.89
9. Reflective Practice in and about Organizational Settings					
Low Rating	2.00	6.00	0.00	10.00	5.00
High Rating	10.00	10.00	6.00	100.00	10.00
Cohort Average	5.64	8.18	2.55	75.50	7.77
Standard Deviation	2.26	1.01	1.90	24.40	1.34
10. Using, Conducting, and Reporting Research					
Low Rating	2.00	4.00	0.00	10.00	2.00
High Rating	8.00	10.00	8.00	100.00	10.00
Cohort Average	4.77	7.68	2.91	75.50	6.73
Standard Deviation	1.82	1.46	2.11	24.40	2.25

Reliability Analysis for the Instrument (50 scaled items): Alpha Coefficient = .8837

***Notes: Information about collecting and analyzing the data in Table 2.**

Column A: Knowledge and Skills Concept Areas
Ten areas of declarative knowledge, procedural knowledge, and skills included in Theme 2

Column B: Pre-Theme Knowledge and Skills, instrument item
Item - *My level of knowledge and related skills as of January 1, 1996:*
Data - Ten-point scaled responses, 1 = None . . . . . 10 = Extensive

Column C: Post-Theme Knowledge and Skills, instrument item
Item - *My level of knowledge and related skills as of May 31, 1996:*
Data - Ten-point scaled responses, 1 = None . . . . . 10 = Extensive

Column D: Growth in Knowledge and Skill during Theme 2
Data - Computed by subtracting respondents' Post-Theme scores from Pre-Theme scores
Formula - (Column B - Column C = Growth) - computed for each individual respondent

Column E: Percent of Growth Attributable to Cohort Program Participation
Item - *The degree to which I believe Theme 2 is responsible for my level of knowledge and related skills as of May 31, 1996:*
Data - Ten-point scaled responses, 1 = 0-10% . . . . . 10 = 100%

Column F: Applying Theme 2 Knowledge and Skills in the Work Place
Item - *My current level of application of knowledge and related skills in my work setting:*
Data - Ten-point scaled responses, 1 = None . . . . . 10 = Extensive

The lowest pre-theme levels of knowledge and skill were in the areas of Analysis of Organizational Situations, Symbolic Nature of Organizations, and Open Systems Nature of Organizations; the highest areas were Team Building and Collaborative Problem Solving and Human Resources Nature of Organizations. It is not surprising that Team Building and Collaborative Problem Solving was viewed by the students as their Theme 2 pre-instruction highest ability area, given that the focus of Theme 1 had been on improving personal mastery and effective team building. As expected, and hoped, the standard deviations for post-theme knowledge and skill levels were all lower than those for the pre-theme measures, indicating that the group variance in knowledge and skill declined as a function of the learning experiences.

Increments of aggregate cohort group growth in the ten concept areas, attributed by the students to their participation in the second semester of the cohort doctoral program, were distributed in the

following growth attribution ranges: (1) from 60% to 69.9% for knowledge and skills in Team Building and Collaborative Problem Solving; (2) from 70% to 79.9% for the study areas of Human Resources and Group Empowerment, Reflective Practice in and about Organizational Settings, and Using, Conducting, and Reporting Research; and (3) above 80% for knowledge and skills in Analysis of Organizational Organizations, Open Systems Nature of Organizations, Political Nature of Organizations, Structural Nature of Organizations, Symbolic Nature of Organizations, and Unique Characteristics of Learning Organizations.

Data presented in Table 2 also indicate the extent to which students have found ways to apply in their professional work settings the knowledge obtained and the skills developed during Theme 2. Means for application of knowledge and skills (on a 10-point scale, where 1= no application and 10=extensive application) ranged from a low of 6.73 for Using, Conducting, and Reporting Research to a high of 8.91 for Human Resources and Group Empowerment. Students indicated a high level of knowledge and skill application (above 8.0 on the scale) in the work setting for seven of Theme 2's ten instructional domains. Cohort students clearly are finding opportunities to apply their new knowledge and skills in assisting their own education work sites' attempts to become more effective learning organizations. However, we do not know whether these opportunities are arising because of the individual student's increased confidence in her/his new knowledge and skills, an already established (pre-cohort program) reputation for assertive and effective leadership, and/or superordinates' recognition of the student's increased contribution potential because of participation in the educational leadership cohort doctoral program. These possible explanations will be explored during interviews with work-site peers and superordinates during subsequent phases of this program evaluation project.

Student Data: Theme 2 Survey Instrument, Open-Ended Response Items

Student responses to the open-end survey items in the Theme 2 survey were compiled by item and then grouped around the emergent themes. After collapsing data groups to eliminate

redundancies, four major categories of responses, consistent with the four categories identified in the first survey, emerged: (1) student feelings about the cohort itself and about being a member of the cohort, (2) student perceptions of their own and others responses to the content knowledge presented in Theme 2, Creating Effective Learning Organizations, (3) student responses to the instructional methods used in Theme 2, and (4) over-all reflections about the cohort program. Each Theme 2 student reaction category is discussed separately below.

Student feelings about the cohort and about membership in the cohort. Students continued to describe their feelings about being a member of the cohort in very positive terms. They described their participation as "invigorating," "exhilarating," and "very worthwhile" and noted that their "confidence is building." Collaboration in Theme 2 was a significant part of the cohort experience for many students. One commented about the "enjoyment of learning with my peers and working together in finding solutions." Another saw personal benefit in "learning more about how my own learning/working style fits with the style of others, both in my organization and in the cohort." One student reflected the observations of several cohort members by stating that the best part of the cohort continued to be "spending time with talented and committed people on common goals." This perception about the benefits of collaboration included instructors as well as students. Appreciation for the "camaraderie (among) the staff and the students of the cohort" and "the opportunity to discuss and seek feedback from instructors" was also a prevalent theme found in results of the Theme 2 surveys.

Some negative observations about cohort membership were also evident. One cohort member requested "more consistent feedback on my progress." Another felt that the final report was flawed, noting that while "guidelines are needed, they cannot be too confining." One student was concerned that "we still seem to establish guidelines after assignments are turned in" and another concluded, "we all need to move from our comfort zones and work with

all members/groups. Our strength will come from working with others - no isolationism!"

Student concerns surfaced about two concurrent group projects required during Theme 2. Students indicated that they did not do as well as they might have on either project because they did not have sufficient time to successfully focus on either one. One student asked that instructors assign only "one project team at a time! Another indicated that "there was not enough time to do both well." Instructors were asked to "revamp project teams" and "require less project work" or provide "more time in class to do group work." One student believed the cohort needed to keep "doing meaningful projects. We just need more specific expectations."

Student responses to the content of Theme 2. The content knowledge selected for major emphasis during Theme 2 was that required for creating effective learning organizations. This theme was approached using perspectives provided by Lee Bolman and Terrence Deal (1991) and Peter Senge (1990). Student responses indicated that their knowledge about learning organizations has grown during their Theme 2 experiences. Students specifically noted the value of looking at organizations using Bolman and Deal's metaphor of "frames" to describe different perspectives. One stated that the most beneficial idea learned was " analysis of problems using the frames. This is something I will use extensively as I examine problems and challenges in my own workplace." Other students commented that the best thing about Theme 2 was learning about "organizational frames," "organizations and their leadership", and "the multiple prospective approach to addressing difficult issues."

Students described extensive growth in their personal knowledge during Theme 2. Illustrative of the comments of many students was the observation "I learned a lot during this theme. The things I learned will help me tremendously on my job." A student stated "This theme moved my thinking about the analysis of organizations forward significantly." Another reported that "The work required was much more rigorous this semester. Once I grasped how to

approach each frame I felt comfortable with the material. I learned a great deal."

Students were asked to identify the most irrelevant thing learned during Theme 2. Several students responded by stating "nothing in particular," "no learning is irrelevant," and "nothing was really irrelevant." Several students commented that time spent dealing with human resources, hiring, and interviewing was irrelevant, and two others commented about the irrelevance of the information provided by several outside speakers. One student brought up a recurring issue by commenting humorously about the "continued challenge of establishing a cheap dinner."

Student responses to the instructional methods used in Theme 2. Comments made by cohort members demonstrated an overall positive response to the instructional methods used during this theme. Many students were able to identify specific aspects of instruction that they found to be beneficial to their individual learning. One appreciated "the multiple instructional perspectives used during this theme" and another appreciated "knowing up front what was expected." More specifically, others identified "fishbowl exercises", "large group discussions involving peers and instructional staff," "small group learning experiences," and "short personal feedback conferences" as activities they liked best about instruction in this theme.

Also noted as beneficial were the "group project and individual problem based learning" and "powerful reading assignments linked to good case studies." Several students mentioned the value of an outstanding textbook and the approach of studying the content through the use of individual "frames." One cohort member concluded that the instructional approach used in Theme 2 "allowed me to focus on my own growth rather than 'jumping' through someone else's contrived hoops."

There were some aspects of Theme 2 instruction that were seen by cohort members as less than positive. Several students expressed concern about the lack of reflective journaling

that had been a prevalent part of the Theme I experience. One student thought that Theme 2 had become "too traditional" because there was" no emphasis on reflection" and another noted that there was "no structured opportunity for personal or group reflection." Other students disliked lecture. One stated "I don't dislike lecture altogether, I just like it least," and another student felt there was "too much lecture before group work." One student raised a concern about "some rather unfocused, unchallenging discussions," but also noted that "This is a challenge, getting discussion to be penetrating and really focused on deep issues."

One widespread concerned surfaced. Many students found the inclusion of a series of guest speakers in Theme 2 to be of limited benefit. One commented that "some of the outside 'experts' did not link as well as they might have to analytical frames we were studying." Another stated bluntly "eliminate the guest speakers." and a third characterized them as "interesting, but not much of an addition to my overall learning." One student made essentially the same comment and then concluded, "I think that our time might have been better spent using the expertise within the cohort rather than asking external experts to speak to us."

Students' overall reflections about the cohort program as experienced in Theme 2. The vast majority of comments made by cohort members about Theme 2 were positive. One student concluded" I learned a lot during this theme. The things I learned will help me tremendously on my job." Students also indicate that they felt a "strong sense of 'group' and less apprehensive than in the first theme," and that they "were beginning to assimilate team concepts." One student described Theme 2 as: "Ambiguous, always changing, interesting, and challenging. Not knowing what to expect is hard. It's the double edged sword of a new program. I like the innovation and adaptability, yet wish I knew what was coming up next. Better organization with the assignments has alleviated this issue somewhat this semester." Finally, another student described the cohort as "exhilarating on the good days and frustrating on the bad days. The

length of the program will cause people to be up and down about the group, the work load, etc. I still fine the program very exciting."

Results: Faculty Interviews Regarding Cohort Program Impact on Campus

Data from the faculty interviews were grouped based on the level of involvement with the cohort as highly involved, moderately involved, and uninvolved. Highly involved faculty are those who professed to know a great deal about the cohort. They helped plan the cohort program and were part of the instructional team for Theme 1. Moderately involved faculty are those who generally professed to have some limited knowledge about the cohort program. Typically they were involved in some planning for the cohort and assisted in the screening of candidates for admission to the program. Uninvolved faculty indicated that they had little knowledge of the program and had not participated in any way; regular faculty meeting reports were their primary sources of information.

Highly involved faculty. Four faculty members and administrators were identified as having been highly involved in the cohort program. They participated actively in planning and developing the program, in the screening and selection process, and three of them delivered the majority of the instruction for Theme 1. The fourth had minimal instructional involvement but had other opportunities for direct face-to-face contact with all cohort members.

Interview responses from the highly involved faculty were overwhelmingly positive. They were obviously knowledgeable about the cohort endeavor and believed that it was having direct impact on their own instructional practices on campus. Each of them was able to cite changes in specific instructional strategies as a result of their participation in the team teaching effort. These faculty found team teaching to be a refreshing change from what one of them described as the traditional isolation experienced by faculty on campus. This faculty member characterized his own personal change as "monumental". Another described a growing tendency toward collaboration among what had been the former "higher education" and "educational administration" faculty members. While more

cautious in judging the impact on campus programs, the highly involved faculty did believe that the cohort program had enriched a developing dialogue among the entire faculty about what constitutes the best leadership practices and how best to deliver leadership preparation programs.

Moderately Involved Faculty. Four faculty members and administrators were identified as moderately involved in the cohort program. Their involvement varied, however. They all had at least some opportunity to have direct contact with all the cohort members, with two assisting in the screening and selection of the students and two participating in both the screening and selection process as well as having a brief involvement with the instruction for Theme 1.

In terms of effects on professional practices, the responses of the moderately involved faculty and administrators also varied. Two indicated that the program has had no impact on their own practices; one reported that her brief experience with the program had expanded her ability to contribute to current on-campus planning efforts. A fourth stated that the cohort program was moving toward "consistency with my prior practices," and saw the cohort program as having a positive influence on current on-campus change efforts.

The statements from the moderately involved faculty and administrators about the impact of the cohort program on campus also showed differences of opinion. Two stated that little or no impact has been felt on campus while the other two clearly noted that the cohort program is influencing current discussions about how to change the on-campus doctoral program.

Uninvolved Faculty. Seven faculty members and administrators were identified as uninvolved in the cohort program. The knowledge they had about the program had been gained from reports at faculty meetings and from informal conversations with members of the other two groups. Three faculty participated in the screening and selection process while two of these three had also met briefly with members of the cohort prior to the beginning of Theme 1. The remaining four of the seven members in this group had been completely uninvolved in the cohort program. Two of the seven members of this group stated unequivocally that the cohort had had no impact on their professional practices. The other

five all either stated directly or implied uncertainty about the ways in which the program may have influenced their practices. These five made a number of statements that indicated that even though they were unsure regarding specifics about the program, they were highly interested in knowing more about what was occurring. Some of their comments demonstrated a desire to know more about how cohort efforts might benefit their own instructional practices. One said of the program, "It's like learning a new language," and another noted that, "This makes me think more about 'walking my talk'."

Interviewed faculty and administrators raised a number of questions and concerns. Primary among these were issues concerning resources. For example, how will the department deal with the impact on already scarce resources? Because the cohort program takes faculty members off campus on a regular basis, many of those interviewed felt that it will be difficult for the department to continue to successfully meet on-campus program requirements. Additionally a number of faculty members expressed concerns about the sheer drain of energy on the professors who make a commitment to travel to Kansas City on a weekly basis -- while still maintaining their on-campus responsibilities. One wondered how such commitments may affect performance on the more traditionally rewarded activities. A number of faculty members also raised concerns about how the department would handle thirty dissertations at one time.

A few faculty members raised questions or issues about the diversity of the cohort, especially in terms of prior preparation and experience of the students selected for the program. One wondered, "Have we cast the net too wide?" Some asked whether such a diverse group could work successfully together within a cohort experience. Several asked about the opinions and attitudes of the cohort members, seemingly concerned about how well students have accepted the cohort delivery model.

Synthesis: Discussion, Implications, and Conclusions

This impact evaluation project was designed to provide preliminary information about the effects of a new educational leadership preparation program currently being delivered by the

University of Missouri-Columbia to a cohort of Kansas City area students pursuing an Ed.D. degree. Perceptual data about the program effects were collected from cohort program participants, cohort faculty, and from other Educational Leadership and Policy Analysis faculty and campus administrators.

Both quantitative and qualitative data were collected from cohort students using the Cohort Survey Instrument. The students used a 10-point scale to rate the four assessment dimensions in each of the eight knowledge and skill content areas presented in Theme 1 and in each of the ten knowledge and skill content areas presented in Theme 2. The four assessment dimensions included before and after Theme 1 and Theme 2 assessments of students' knowledge and skills in each content area, the degree to which participation in the program contributed to their growth and development, and the level to which they applied knowledge and skills from the themes in their educational practices within their work settings. The cohort students also responded to ten open-ended items about their cohort membership, the content knowledge and skills presented in themes one and two, the instructional methods, and overall reflections about their learning experiences.

The evaluation efforts, to date, have been limited to perceptual, self-reported data from cohort students and therefore lack checks of validity from other data sources and through other data collection procedures. Nonetheless, the project's results for evaluating themes one and two of this innovative, off-campus cohort doctoral program provide evidence for the following preliminary conclusions:

- The program has had positive impact on students' cognitive growth as well as on their professional practice.
- Content, instructional strategies, and experiential learning activities for both Theme 1 and Theme 2 were well received by students. Students feel free to express both their positive and negative comments about the program, with the belief that they can influence both the content and context of their own learning within the doctoral program.

- Faculty members' and campus administrators' perceptions of the program's impact on their own practice and on the department's on-campus instructional programs vary with their level of involvement with the cohort program.

Theme 1 (1995 fall semester) of the program focused on *Creating Personal Mastery and Effective Learning Teams*, Theme 2 (1996 winter semester) on *Creating Effective Learning Organizations*. Theme 3 for the 1996 fall semester focuses on *Creating the Content, Context, and Climate for Effective Learning* and Theme 4 for the 1997 winter semester will deal with *Creating Practice and Policy for Addressing Critical Issues*. Summer sessions for 1996 and 1997 engage the cohort students in knowledge and skill development related to measurement, statistics, research design, and program evaluation. Authentic assessment methods will be used for the students' doctoral comprehensive exams during the 1997 summer session. The 1997-98 academic year has been designated as the "dissertation year" with a target date for graduation projected for August 1998.

Future plans for continued program evaluation call for a multifaceted approach to data collection to achieve the evaluation purposes outlined earlier in the paper. Because the program is performance-based, the approach to any summative program evaluation will require the merging of perceptual data with actual performance-based data. These data will be collected from cohort students, from their supervisors and professional colleagues, and/or through actual observation of the students' on-the-job performance. Future data collection will also focus on the impact the cohort program has had on university faculty members, on campus administrators, and on the department's instructional delivery strategies and graduate degree programming for preparing educational leaders.

The form and content of future evaluation efforts are still in the design stage. We assert that, just as the cohort program has responded to calls for reform in professional preparation programs, so too must the evaluation approach be responsive to and consistent with a performance-based design. This will require innovation in the program evaluation approaches employed, potentially leading to new understandings and models of how reformed professional programs can and should be evaluated.

References

Arredondo, D.E. & Rucinski, T.T. (1994). Using the workshop approach in university classes to develop student metacognition. *Innovative Higher Education*, 18 (4): 273-288.

Arredondo, D.E., Donaldson, J.F., Hatley, R.V. & Updike, L.W. (1996, April). Preparing leaders for learning organizations: Examining the effects of a multidimensional curriculum--Theme 1. Sixth International Symposium on Collaborative Action Research. Kansas City, MO.

Bjork, L.G. & Ginsberg, R. (1995). Principles of reform and reforming principal training: A theoretical perspective. *Educational Administration Quarterly*, 31(1), 11-37.

Bohlman, L.G. & Deal, T.E. (1991). *Reframing organizations.* San Francisco: Jossey-Bass.

Cervero, R.M. (1988). *Effective continuing education professionals.* San Francisco: Jossey-Bass.

Conrad, C.F., & R.F. Wilson. (1985). *Academic program reviews: Institutional approaches, expectations, and controversies*, ASHE-ERIC Higher Education Report No. 5. Washington, DC: Association for the Study of Higher Education.

Cordeiro, P., Boutiliero, L., Panicek, J.A., & Salamone-Consoli, A. (1993, February). The training of school administrators: The roles of practitioners, students, and professors. Annual Meeting of the American Association of School Administrators. Orlando, FL.

Forsyth, P.B. (1993). Preface. In J. Murphy (Ed.), *Preparing tomorrow's school leaders* (pp. xi-xii). University Park, PA: The University Council of Educational Administration.

Grotelueschen, A.D. (1980). Program evaluation. In A.B. Knox and Associates, *Developing, administering and evaluating adult education.* San Francisco: Jossey-Bass.

Hatley, R.V., Arredondo, D.E., Donaldson, J.F. & Phillips, C.A. (1996, April). Designing and implementing a non-traditional off-campus Ed.D. program in educational leadership and policy analysis. Annual Meeting of the American Educational Research Association. New York, NY.

Lightfoot, S. L. (1983). *The good high school..* New York: Basic Books.

Murphy, J. (1991). *Restructuring schools: Capturing and assessing the phenomena.* New York: Teachers College Press.

Nowlen, P. M. (1988). *A new approach to continuing education for business and the professions: The performance model.* New York: Macmillan.

Pitner, N. J. (1988). School administrator preparation: The state of the art. In D.E. Griffiths, R.T. Stout, & P.B. Forsyth (Eds.), *Leaders for America's schools.* Berkeley, CA: McCutchan.

Schon, D. (1987). *Educating the reflective practitioner.* San Francisco: Jossey-Bass.

Senge, P. (1990). *The fifth discipline.* New York: Doubleday.